

2011-07-21 Thursday Morning Notes

Thursday, July 21, 2011

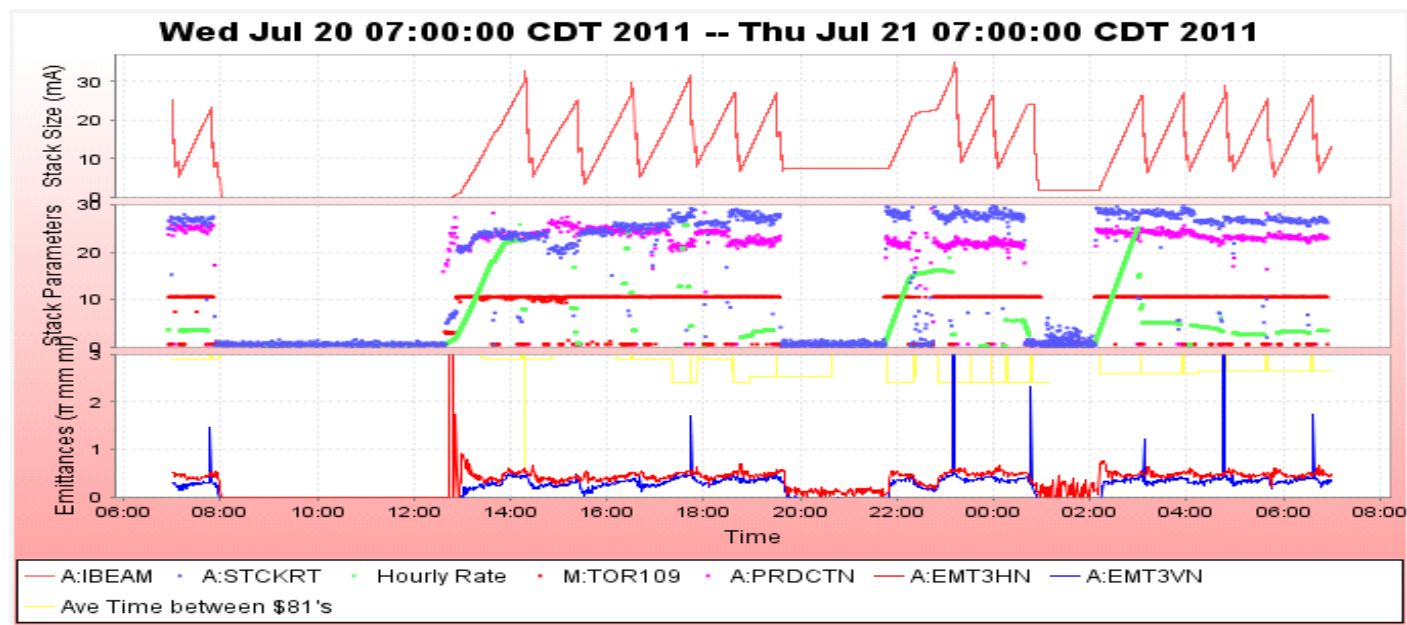
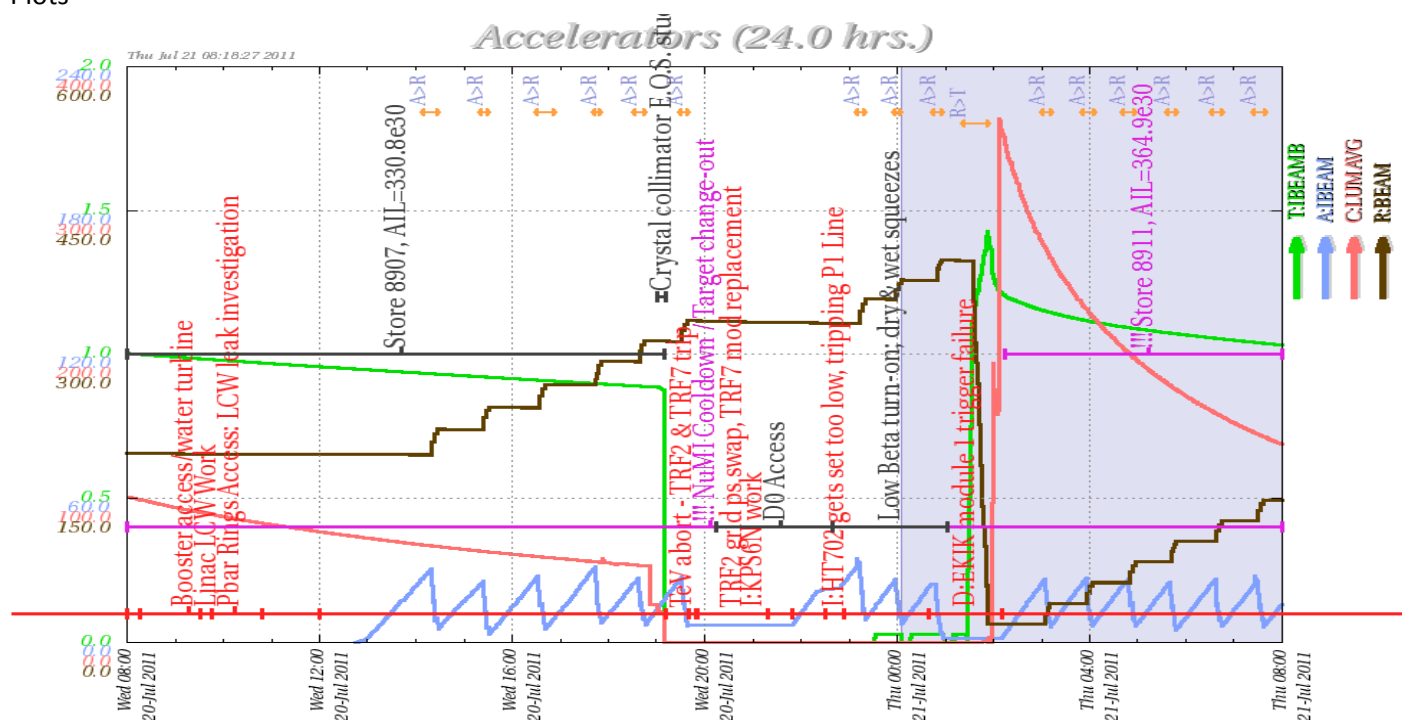
Access

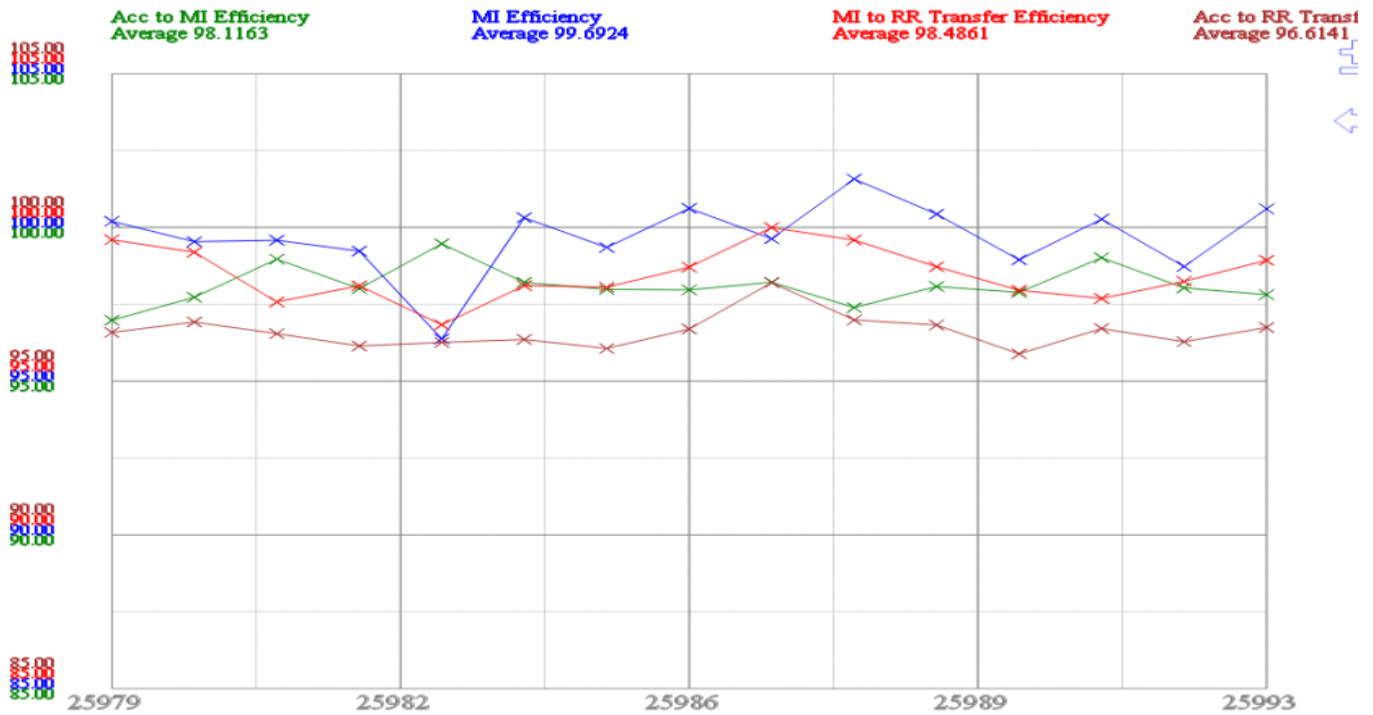
- LCW Leaks. Leak started the morning of July 10th and was a constant 100gal/day for a long time. Over the last two days, the leak rate increased to 220 gal/day. Accessed to repair LCW leaks. Repairs were successful as we did not makeup any LCW overnight.
 - **A5S12**: Split orange hose. This is a majority of our current LCW Leak. Water experts will repair this today.
 - **IQ31**: Black hose in back is dripping fairly fast. Water experts will repair this today.
 - **D5Q6**: This is a very slow weeper that will require a braze.
 - **DRF1-7**: There is a very small leak on a manual valve on the ceiling.
 - **A2Q13**: A fairly fast dripper on a black hose on an LCW tee at the top of the magnet. Water experts will repair this today.
 - **D1B18**: A very tiny dripper on the bottom black hose.
 - **D1Q14**: There are two leaks on this magnet. One is an orange hose on the front that water experts will fix, and the other is on the copper block where the LCW lines feed in and will require TD to repair.
 - **D4B18**: A small dripper on the bottom black hose. Water experts will repair.
 - **D:QS315**: The top orange hose on the shunt is leaking. Water experts will repair today.
 - **EQ23 (Transport Enclosure)**: Has an internal water leak.
- PMAG collimator strainer flushed
- Target blower maintenance done
- A lower noise +5V power supply has been installed for the Accumulator Low Level RF chassis. See A:R1LP05. It has been adjusted to the same voltage as the previous supply.
- A:V504 swapped out with a spare, but spare readback is noisy with a -2A offset. Had to adjust to minimize orbit oscillation. The trim stabilized after running a few hours.

Numbers

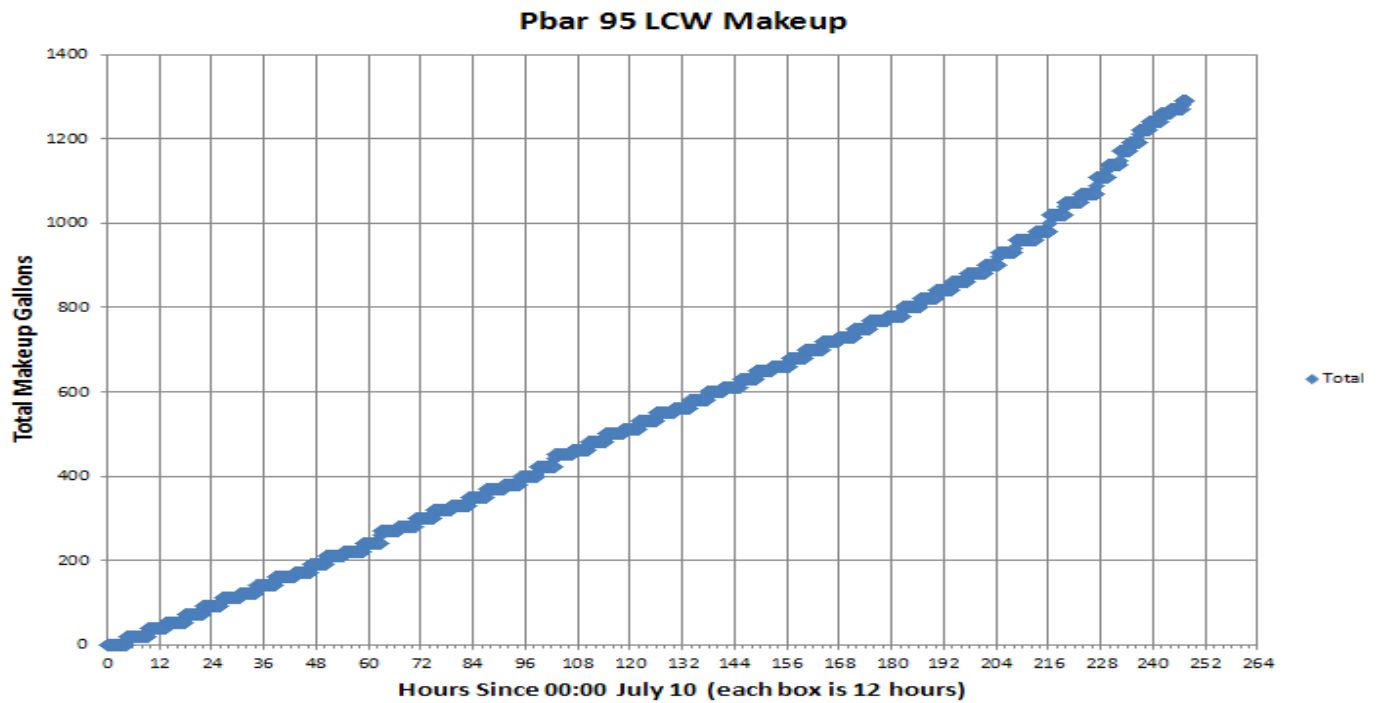
- Stacking
 - Pbars stacked: 395.55 E10
 - Time stacking: 16.83 Hr
 - Average stacking rate: 23.50 E10/Hr
- Uptime
 - Number of pulses while in stacking mode: 22395
 - Number of pulses with beam: 19922
 - Fraction of up pulses was: 88.96%
- The uptime's effect on the stacking numbers
 - Corrected time stacking: 14.97 Hr
 - Possible average stacking rate: 26.42 E10/Hr
 - Could have stacked: 444.65 E10/Hr
- Recycler Transfers
 - Pbars sent to the Recycler: 375.58 E10
 - Number of transfers : 47
 - Number of transfer sets: 16
 - Average Number of transfer per set: 2.94
 - Time taken to shoot including reverse proton tuneup: 00.16 Hr
 - Transfer efficiency: 96.64%
- Other Info
 - Average POT : 8.41 E12
 - Average production: 23.60 pbars/E6 protons

Plots





B	C	D	E	F	G	H	I	J	K	N	O	P	Q	R	S	T	U
Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time		Column 21 Number_20_A:I BEAMB sampled on \$91 (A:BEAM7), E10	Column 22 Number_21_A:I BEAMB sampled on \$94 (A:BEAM9), E10	Unstacked (mA)	Column 23 Number_22_R:B EAMS (R:BEAMEO[0]) pre fter E10	Column 24 Number_23_R:B EAM (R:BEAMEO[1]) post fter, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Trans fers	Sets	Column 5 Number_4_Acc Horizontal Emittance	Column 6 Number_5_Acc Vertical Emittance	Column 8 Number_7_Acc Longitudinal Emittance
Totals =>					357.43			345.61	96.69%	98.18%	97.96%	96.17%	45	15	4.4447	3.1873	2.0356
Daily Average =>					357.43			345.61					45	15			
25993	Thursday, July 21, 2011	7:29	25.92	6.31	22.30	126.90	148.30	21.58	96.78%	98.01%	99.13%	97.16%	3	1	4.823	3.383	2.046
25992	Thursday, July 21, 2011	6:37	26.60	6.59	22.71	105.44	127.13	21.89	96.39%	97.53%	96.91%	94.52%	3	1	4.474	3.619	2.039
25991	Thursday, July 21, 2011	5:41	25.63	5.28	22.33	84.12	105.65	21.64	96.91%	98.86%	98.88%	97.75%	3	1	4.219	2.858	2.043
25990	Thursday, July 21, 2011	4:49	27.11	6.71	23.11	62.31	84.32	22.19	96.00%	98.03%	97.35%	95.44%	3	1	4.632	3.539	2.053
25989	Thursday, July 21, 2011	3:56	27.33	6.83	22.91	40.32	62.46	22.24	97.05%	98.11%	98.50%	96.65%	3	1	4.875	3.432	2.05
25988	Thursday, July 21, 2011	3:04	26.49	6.34	22.08	19.13	40.44	21.41	96.96%	97.49%	98.51%	96.04%	3	1	4.428	2.904	2.083
25987	Thursday, July 21, 2011	0:49	24.38	1.86	22.54	376.89	398.65	22.12	98.15%	98.67%	98.55%	97.24%	3	1	1.846	0.147	1.976
25986	Wednesday, July 20, 2011	23:58	26.49	7.52	21.65	357.35	377.92	20.94	96.73%	98.14%	98.46%	96.62%	3	1	4.725	3.502	2.091
25985	Wednesday, July 20, 2011	23:13	33.56	9.21	27.03	332.45	358.10	25.96	96.05%	97.59%	97.03%	94.70%	3	1	5.058	4.051	2.067
25984	Wednesday, July 20, 2011	19:31	27.44	6.80	23.21	313.57	335.62	22.42	96.58%	98.25%	98.10%	96.38%	3	1	5.046	3.908	2.068
25983	Wednesday, July 20, 2011	18:38	27.26	6.79	23.20	292.47	314.53	22.38	96.45%	98.85%	96.62%	95.50%	3	1	5.001	3.754	2.137
25982	Wednesday, July 20, 2011	17:44	31.89	8.05	26.52	268.14	293.35	25.52	96.24%	98.21%	97.58%	95.83%	3	1	4.761	3.897	2.062
25981	Wednesday, July 20, 2011	16:33	28.24	5.25	25.51	244.46	268.89	24.67	96.69%	99.40%	98.62%	98.03%	3	1	4.296	3.289	1.964
25980	Wednesday, July 20, 2011	15:24	25.58	3.49	24.32	221.82	245.13	23.60	97.04%	98.43%	97.90%	96.36%	3	1	3.926	2.204	1.902
25979	Wednesday, July 20, 2011	14:20	30.97	5.26	28.01	195.51	222.34	27.06	96.61%	97.19%	97.63%	94.89%	3	1	4.56	3.322	1.953



Pbar 95 LCW Leak. Rate was linear at 100gal/day for a number of days, but started getting worse. Tuesday we made up 200 gallons. Access to repair leaks



A5S12 LCW Leak

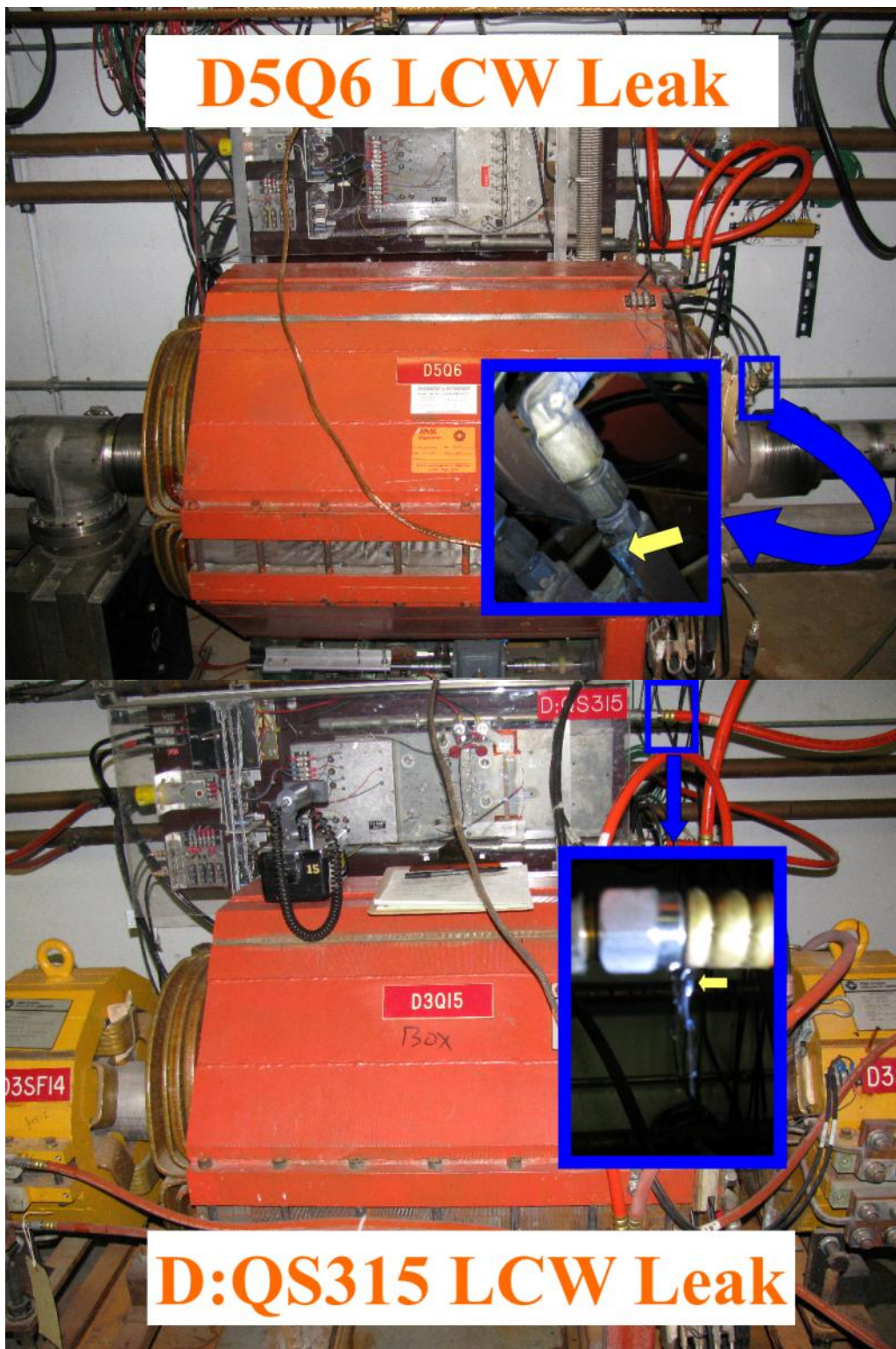


D1B18 LCW Leak

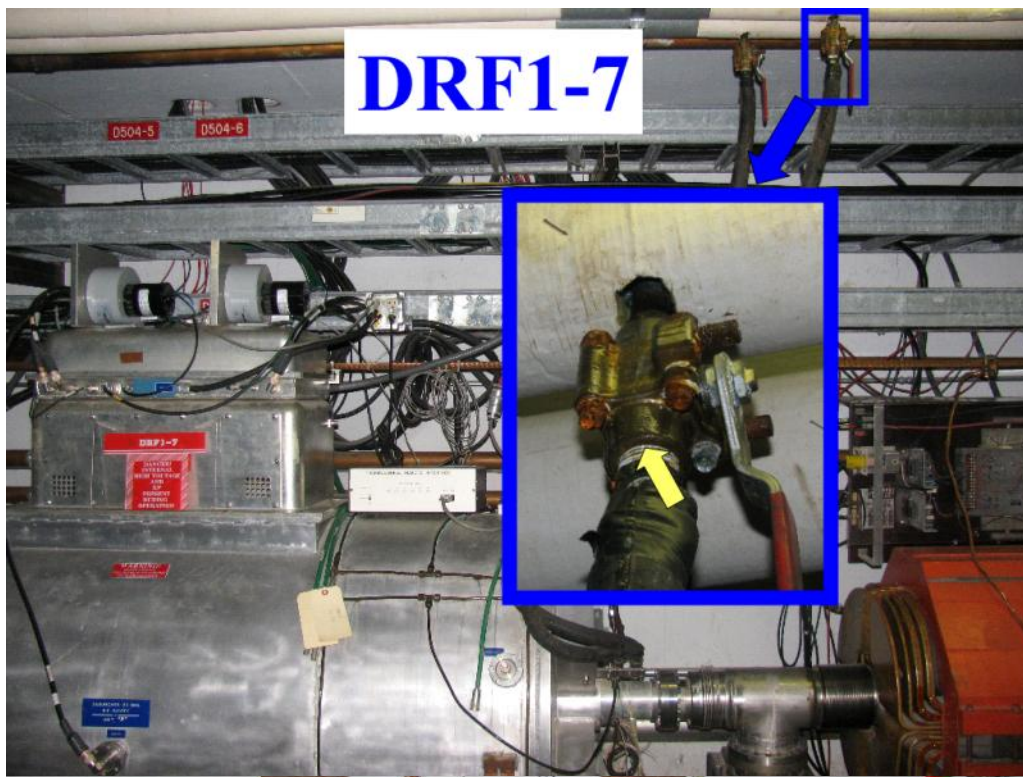




D5Q6 LCW Leak



D:QS315 LCW Leak



EQ23 Internal LCW Leak



IQ31 LCW Leak

